

AN INVESTIGATION OF THE EFFECTS OF IMMEDIATE
EXPERIENCES UPON RESPONSES TO THE
THEMATIC APPERCEPTION TEST

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HISTORY

The Thematic Apperception test was first described in 1935 by Morgan and Murray,²¹ who were exploring its use as a technique for investigating fantasies. Since that time, it has been increasingly used in many psychological clinics and for research.³³ The validity of the test has been studied by Harrison^{14,15} and Rotter.²⁹

Working with 40 cases in the Norwich State Hospital, Harrison obtained a validity coefficient of .83 in comparing biographical facts, diagnosis, intelligence, various traits, attitudes, and problems with deductions made from T.A.T. records. To determine chance correlation, Harrison introduced a check in which fictional case histories were written, and then the investigator had to match these with T.A.T. records. By this method, a correlation of .37 was established between guesses from T.A.T. responses and case history data. Thus, Harrison's ability to predict or match the various aspects described above was significantly greater than chance, and is proof of the validity of the T.A.T., at least at a superficial level.

Rotter²⁹ was interested in finding out (1) whether the test saved time in gaining information; (2) if it revealed information that appeared only after extensive investigation and probing; (3) if it had diagnostic value; (4) how productive and valuable his method of analysis was; (5) whether it

could answer certain problem questions; and (6) if any specific types of pictures were better suited than others for these purposes. In answer to these questions, Rotter found that: (1) the test appeared time saving in most cases; (2) it did reveal significant material that was confirmed by the psychotherapist, the social case history, or the psychiatrist; (3) it had definite diagnostic value; (4) the method of analysis used was found highly successful for the purposes intended and the subjects used; and (5) two criteria were found for determining more useful pictures.

Many writers have testified to the utility and value of the T.A.T. including Rappaport,²⁷ Masserman,²⁰ Balken,³ Sanford,³¹ Jacques,¹⁷ and Tomkins.⁴⁰ However, none of them have published any experimental data supporting their testimony. Instead, most of the articles give the writer's version of how the T.A.T. records might be interpreted.

Initially intended as a technique for investigating fantasies, Murray²³ evolved a system of Needs and Presses that is based upon his own concept of personality and general psychological point of view. Though the T.A.T. cards have been widely accepted, this system of interpretation has not, and the different workers use various methods of interpretation.

The test meets Frank's widely quoted description of a projective technique.¹¹

"It involves the presentation of a stimulus situation designed or chosen because it will mean to the subject, not what the experimenter has arbitrarily decided it should mean, but rather whatever it must mean to the personality who gives it, or imposes upon it, his private, idiosyncratic meaning and organization. The subject then will respond to his meaning of the presented stimulus-situation by some form of action and feeling that is expressive of his personality." p. 403

Thus, the T.A.T. is adaptable to any psychological point of view, i.e. personality theory. It is used by Bal-ken and Masserman⁴ to yield fantasy and dream material, and is interpreted by them psychoanalytically. Murray and his students use his theory of Needs and Presses. Jacques,¹⁷ Harrison,¹⁴ and Rotter²⁹ have used a method of interpretation which might be illustrated with Rotter's definition of personality.

"A term (construct) which describes that aspect of an unified, complexly organized individual, which has to do with his characteristic modes of interpreting and reacting to the world in which he lives."

In line with its psychoanalytic parentage, the test has no normative data to aid clinicians in interpreting individual responses. Sanford³² has made such a study, but the results were not available to the writer.

STATEMENT OF PROBLEM

Various workers with the T.A.T. have found instances in which the stories told reflected immediate experiences, such as a radio program, movie, or book. This study was devised as an attempt to measure the extent to which an immediate experience is reflected in responses to the T.A.T., since for clinical use validity depends on degree to which this is not true. One such study has been made by Rotter and Rodnick³⁰ who found that "measurable changes in the T.A.T. occur immediately after a frustrating experience as compared to responses succeeding a successful experience."

Other problems investigated included: (1) The effect of sex and I.Q. upon the level of response or productivity; (2) effect of age upon the average level of response; (3) value of the T.A.T. for children between the ages of 8 and 15 in terms of productivity; (4) characteristics of the most productive and least productive pictures; and (5) determination of the predominant emotional tone for the various cards.

PROCEDURE

The procedure used was to give half of Murray's latest set of T.A.T. cards (1943 edition) to 41 children before they had seen a motion picture, and the other half after they'd seen the motion picture. The children were between the ages of 8 and 15, (Table II) and living at the Methodist Children's Home in Worthington, Ohio.

Most of the children in this institution had at least one parent living, but home conditions were such that they could not live at home. Some of the reasons were: one parent (or both) had deserted the family; illness of parents; institutionalized parent(s); or poverty. None of these children, however, had delinquent records to a degree greater than that of normal children.

Selection of Pictures

Criteria used in the selection of pictures for this study included:* (1) appropriateness for ages used in the study; (2) appropriateness for both sexes; and (3) matching the two sets for probable themes. The pictures selected were divided into Set A and Set B. Set A included 6BM, 8GF, 13B, 18GF, 20, 4, 11, 3GF, 2, and the blank card, and was presented in the order named. Set B included the following

* The pictures used were selected from the T.A.T. set by Dr. Julian B. Rotter and the writer jointly.

pictures in order named: 7BM, 13G, 1, 18BM, 14, 6GF, 19, 3BM, 7GF, and the blank card. Appendix III gives a brief description of each picture. Set A was shown to half of the subjects first and Set B first to the other half. Both sexes saw the same pictures.

The first ten pictures were given on a Wednesday. On Thursday, the children had a routine day of play, and on Friday afternoon they went on their semi-weekly swim. After supper they were shown the film, and Saturday the investigator returned to give them the second half of the test. The writer's wife administered the test to the girls and the writer saw the boys.

Motion Picture

The motion picture shown to the children was a one reel, 15 minute, Metro-Goldwyn Mayer short entitled "The Greener Hills." It is the story of an optimist who is continually seeking greener pastures and selling his family on it. When he buys a peanut farm and at first can find no peanuts, his wife resolves to stick and he goes on by himself. Eventually, he returns to his family to find them successful, having found peanuts growing under the ground. A full description of the film is given in Appendix II.

It was selected from the Ohio State Department of Education film library, and was shown to the children by a university projectionist. All the children in the Home were

encouraged to see the film, and they were given no indication that it was related to the stories they had been asked to make up for the T.A.T..

The investigator previewed this and other available films, and selected this one because it was fairly dramatic and contained a boy and girl of about the same age as the children at the home, and with whom they might display empathy.

Method of Administration

Procedure used in administering the T.A.T. closely followed the one advocated by Rotter.²⁸ To insure that both examiners would be employing as identical as possible a procedure, the writer wrote out the outline contained in Appendix I and discussed it to insure complete comprehension. No difficulties were encountered in carrying out this method of administration, which was quite similar to the one employed by Gerver¹² in working with very young children.

CLASSIFICATION OF RESPONSES

In order to make efficient use of the data obtained, it was decided to classify the responses in several respects: First, according to level of response as described by Gerver;¹² secondly, according to predominant emotional tone; and thirdly, as to the theme of the story.

Level of Response

In an attempt to determine the productivity of the various pictures in Murray's 1943 set, Gerver classified responses in five categories. The same system of classification was used in this study; a description of which follows:

First Level

The first and lowest level of response, designated as an "A" response is one in which the subject makes no response to the picture. It is realized that "blocking" as well as other factors might account for this failure to respond and that for the individual case it might be highly significant.

Second Level

The second level of response is at the enumerative level, and consists of static listing of objects seen in the picture. Examples of this level follow:

Case 1, #11: "This man is old and has white hair, a white mustache, black suit, black tie, and white shirt."

Case 41, #7: "looks like there is a little bug on a rock. There is something looking out of a hole."

There is a hole on one of the rocks. A little path is there and there is a great big rock. There is a little tunnel through it. That is all I know."

Third Level

The third level of response calls for overt description of action, such as crying, praying, peeking, hiding, dreaming, thinking, kissing, and turning. It calls for more action than Case 41, #7 reproduced above displays. Three examples of this level follow:

Case 2, #9: "Girl is going to school and this man and that horse is working on a garden. This lady is watching them."

Case 7, #13: "This guy is making something. Looks like he has a rag or something. Don't know anything else about him. (What do you think he's thinking about?) He's thinking about putting something on there."

Case 35, #13: "It looks like this little boy is trying to play a violin and he can't get a note or something. (What happens then?) Maybe a string broke on his violin and he is trying to fix it. It looks like he is thinking of something and he can't find anyone to fix it for him. That is all."

Fourth Level

The fourth level is an interpretive one, but not as complete as the fifth level. An interpretation of kinship or type, such as occupational, religious, or mythological characters as represented by teacher, boss, witch, or Jesus. A second kind of interpretation would be of a psychological state of feeling or emotion, such as happy, sad, sacred, or angry. A third evidence of interpretation is the assigning of traits to characters, such as nice, mean, good, or nasty.

A response is also scored at this level if it contains content of thinking, which Case 35, #13 above fails to do. Examples of this level of response are:

Case 4, #6: "This man and his wife are looking at some pictures on the wall, and his wife has her hand around his arm. He's looking at another picture on the other side of the wall. And the man is going out for dinner pretty soon and so was his wife. S'all I can think of for that one."

Case 8, #17: "Can't tell what this picture is. Looks like a house with spooks in it and snow on the ground, and the wind is blowing hard and the people in the house are scared. They think the house might be blown away."

Case 23, #3: "This little boy done something wrong and he went out in the barn to think it over, whether to tell his mother the truth or don't tell her the truth. (How does the story end?) He goes and tells his mother the truth that he did that wrong and he asks her to forgive him. That is all I can think of."

Fifth Level

The fifth level of response has two criteria: (1)

Telling how one member feels about the other(s) in a picture, or (2) a story with a complete plot including what led up to it, sequence of events, and the outcome. Examples are:

Case 14, #2: "This is a teacher that is grieved over something that her children have done. She is in a rowdy district where she is trying to educate some of the rowdy children. Every time one of her pupils does something wrong she is grieved because she thinks she's doing very well."

Case 25, #15: "This could be a man that he might have killed someone in this room and he is trying to escape out the window and the police are coming in the front. He gets out the window and into the alley. The police catch him in the alley and bring him back to the house and they take him to jail. And he escapes again and he kills someone else and

he escapes the same way. And he goes to another house and the police come to search this house, and they catch him and put him in jail for life time, so that he won't kill anyone else."

Case #37, #18: "This boy looks like he is crying. He looks like he has a knife or keys at his side. He was carving some wood trying to make something, and his father wanted the chair which he was carving. And this boy was whittling away with his knife and he was sent up to bed without any supper. But this little boy was trying to make a Mother's Day present for his mother. He said a little bird. And when he told his father, his father forgave his son and told him it was a good thing to give his mother."

Predominant Emotional Tone

After all the stories were classified as to level of response, those falling in the fourth and fifth levels, i.e. "D" and "E", were also analyzed as to predominant emotional tone. This was done for the story as a whole except for the endings. A separate analysis was made of the endings with the same criteria as used for the rest of the story. The following system of classification for emotional tone from Rotter²⁹ was employed:

"Happy Stories" - Those in which the action is comparatively free from sadness or misfortune, and is usually marked by gratification, success, etc.

An example of a happy story is case 3, #3: "She's thinking about her boy friend. She thinks that maybe they'll get married some day. She thinks that maybe he will become a hero in action someday in the army, and when he comes back she will have a little baby boy or girl, and they'll get a big, two story house, and have a happy life."

"Unhappy Stories - Those marked by an unhappy state of affairs, e.g., frustration, misfortune, ect."

Case 8, #18 illustrates an unhappy story: "This is a boy and he's crying. He is on the bed. Something must have happened to his mother and father, or he might be sick. He might be thinking of the people who are starving, and I can't think of anything else."

"Neutral Stories - Those lacking definite emotional tone. Outwardly, at least, the subject gives an 'objective' report of the picture, but no real affective coloring is present in the interpretation of the action."

Case 29, #3 is an example of a neutral story:

"Well, this little boy is probably watching his father work on the farm. He wonders how he does them. He probably has the habit of sucking his thumb. Maybe, he is thinking of going back to school and if he is going to pass, and wondering about anything. That's about all."

Themas

As part of the investigation it was decided to analyze each interpretive story, i.e. those classified as "D" and "E" response, for its basic theme - the meaning being similar to plot, motif, or principal dramatic feature of the story. This is intended to correspond with what Murray²² considers a loose construction of themas.

The present classification is a preliminary attempt to determine what are frequent and what are unusual themas for the various pictures in the T.A.T. set. It is felt that more objective normative data would aid the clinician in evaluating responses to the T.A.T. cards,

but this is not intended as an initial effort to construct rigid norms. This follows a point of view that falls between psycho-analytic subjectivity and statistical limitation for clinical diagnosis. Distinctions made between various themes in this study were hazy in many instances, but in this respect the work is of a preliminary nature.

DISCUSSION OF RESULTS

Effect of Immediate Experiences

In the section on procedure, the method for investigating the effect of immediate experiences was outlined. Forty-one subjects were examined before the film was shown, and thirty-seven of these were examined the day after the showing. Two of the subjects had left the home during the period between the two examining sessions, and the other two were ill in the hospital. Thus, 410 stories were obtained before the film was shown, and 370 afterwards.

A careful analysis was made of all of the stories, and only one of the 370 gathered after the showing of the picture reflected the film. This was told by Case 20 for card #16 (6GF). One of the stories mentions a present of a bicycle, but in this case the youngster had actually received a bicycle as a present recently. Sixteen of the stories in response to card #9 (2) were about farm life, but nine of these stories were given before the subject had seen the film. This would seem to indicate that this is a common thema for this card, and it was not a result of having seen the film.

Though the film shown was not the most dramatic, it would still indicate that such experiences of a similar dramatic intensity have very little effect upon responses to

the T.A.T.. Therefore, clinical validity in at least this respect in evaluating responses to the test appears to be demonstrated.

Level of Response

The classification of responses into five different levels, the lowest level being no response and the highest calling for definite interpretation of a more complex sort, has been described above. Each level was assigned a weighted score as indicated by Table I.

TABLE I

<u>Level of Response</u>	<u>Code</u>	<u>Value</u>
No Response	A	1
Static Enumeration	B	2
Overt Description	C	3
Interpretation I	D	4
Interpretation II	E	5

For each child a score was computed by multiplying the frequency of each response times the values given in Table I. The mean score or productivity level for each subject was determined by dividing the total score by the number of responses.

Effect of Sex Upon Level of Response

Table II shows the age, 1936 Stanford-Binet I.Q., and average level of response or productivity for the 41 children used in the study. Eliminating children below 9-0

TABLE II
AGE, I.Q., AND LEVEL OF RESPONSE

<u>Case No.</u>	<u>Age</u>	<u>I.Q.</u>	<u>P.R.</u>
1.*	8-1	90	2.50
2.	9-6	110	4.15
3.	12-0		4.35
4.	9-0	112h	4.00
5.	9-8	92	3.65
6.	11-8	124	4.50
7.	9-4		2.75
8.	10-5	101	3.85
9.	11-7	109	4.15
10.	9-11	99	3.75
11.*	10-6	103	3.80
12.*	11-2	111	4.40
13.	10-1	130	4.00
14.	12-2		4.50
15.	11-0	104	4.55
16.	9-0	93	3.85
17.	11-10	116	3.70
18.	9-0	93x	1.20
19.	13-5	116	4.90
20.*	8-7		3.50
21.	9-0	113	3.40
22.	10-0	86	3.25
23.	9-11		4.55
24.	9-3	105	3.65
25.	11-1		4.65
26.	12-9		3.70
27.	13-8		4.20
28.*	14-11		3.90
29.	13-1		4.35
30.*	15-3	120	3.80
31.	9-8		3.95
32.	10-0	106	3.80
33.*	15-0		3.25
34.	10-1		3.80
35.	11-1	101	3.90
36.	10-1		3.20
37.	13-6	106	4.40
38.*	8-9	75	3.30
39.	12-4	111	3.75
40.*	14-2	104	4.35
41.	10-5		3.80

* Denotes a case that was no included in matched groups.

h Means Herrying Binet given instead of Standford-Binet.

x Indicates case in which the examiner felt the I.Q. was higher but the boy refused to respond.

Cases 1 to 20 are boys and 21 through 41 are girls.

or above 14-0 and two boys who took only half the test, we have two well matched groups of 16 boys and 16 girls. The mean age of the boys is 10-7 and the girls, 11-0. The ages of the boys ranged from 9-0 to 13-5, and of the girls from 9-0 to 13-8.

The results of the Binet examination was available for 13 boys who had a mean I.Q. of 109 with the range from 92 to 130. The mean I.Q. for the seven girls with reported I.Q.'s was 104, and the spread from 86 to 113.

The mean productivity level for each sex was computed by adding the mean scores for each sex separately and dividing this sum by N, sixteen in each case. The resulting mean for the boys was 3.86 as compared to 3.90 for the girls. The boys ranged from 1.20 to 4.90 while the spread for the girls was from 3.20 to 4.65. The difference is not statistically significant.

Effect of I.Q. Upon Level of Response

A rank order coefficient of correlation was computed for the twenty-five cases in which an I.Q. was available and the level of response. R. was found to be .53. Gerver¹² used a vocabulary test taken from the Stanford Revision of the Binet to get a measure of intelligence, and correlated that with the level of response of her young subjects. She reported a positive correlation of .25.

Effect of Age Upon Level of Response .

To determine the effect of age upon the level of response, the 41 subjects were divided into two groups. Mean age of the younger group was 9-5 and of the older group 12-7. Mean level of response for the younger group was 3.54 and for the older group 4.15. Critical ratio between the two groups for age is 9.22 and the critical ratio for level of response is 3.51. Both critical ratios were computed by using Fisher's "t" method,¹⁸ the formula being:

$$t = \frac{M_1 - M_2}{\sigma_{M_1 - M_2}} = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1 - 1} + \frac{\sigma_2^2}{N_2 - 1}}}$$

Using the rank order method, a coefficient of correlation of .48 was found between age and level of response. The formula used was:

$$r = \frac{1 - \sum d^2}{N(N^2 - 1)}$$

Only six of the forty-one children had less than fifty percent of their responses classified interpretive. The six that fell below were cases 1, 7, 18, 22, 33, and 36. Their respective ages were 8-1, 9-4, 9-0, 10-0, 15-0, and 10-1, with three being boys and three girls. However, 65 per cent of the 770 responses obtained were scored as interpretive. Thus, according to the criterion for utility of the T.A.T. as advocated by Amen and Gerver, the pictures used in this investigation are adequate for children between the ages of 8-2 and 15-3.

Characteristics of the Most Productive Pictures

The most productive pictures were 3GF, 6EM, and 18GF (shown in Table III as 8, 1, and 4) in that order. In appendix III, may be found a description of them. Upon studying them, it becomes evident that Rotter's two criteria for "more valuable pictures" definitely applies to all three. He lists the following two general characteristics of the most valuable pictures:²⁹

"(1) They represented real people in some dynamic action which was not too far removed from the subject's own personal experience or knowledge.

(2) The action itself and the expressions of the people in the picture were somewhat ambiguous, although the outlines of the pictures were not too vague." pp. 32-33

These three pictures also seem to fit Symond's three criteria:³⁸ "(1) minimum of detail, (2) vagueness of theme, and (3) incomplete content." However, they do not agree with his other criteria "that the persons portrayed be of about the same age and sex as the subject, and only one of the three expresses "strong action." Amen¹ adds the criterion that the picture portray an every day situation, but the three most productive pictures do not particularly fit this category.

TABLE III
PICTURE PRODUCTIVITY

Picture	Level of Response					Total	P.R.
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>		
1.	3		1	16	18	38	4.21
2.	2		12	15	9	38	3.76
3.	1	1	12	17	7	38	3.73
4.	2		5	14	17	38	3.50
5.	3	1	16	10	8	38	3.50
6.	1		12	12	13	38	3.95
7.	3	2	27	4	2	38	3.00
8.	1		6	13	18	38	4.24
9.	2		10	18	8	38	3.79
10.	8		5	6	19	38	3.75
11.	3	1	5	21	10	40	3.73
12.	2	1	13	21	3	40	3.55
13.		1	13	13	13	40	3.95
14.	1		21	5	13	40	3.73
15.			13	10	17	40	4.10
16.	2		9	14	15	40	4.00
17.	1	1	18	8	12	40	3.73
18.	1	1	7	13	18	40	4.15
19.	1		3	25	11	40	4.13
20.	8	1	10	1	20	40	3.60
<hr/>							
Totals	45	10	218	256	251	780	76.76

Mean picture productivity ratio (P.R.) 3.84
Mean Standard deviation (P.R.) .24

Percent of "A" responses — .058
Percent of "B" responses — .013
Percent of "C" responses — .279
Percent of "D" responses — .328
Percent of "E" responses — .322

Characteristics of the Least Productive Pictures

Only one picture feel considerably below the mean level of response. That was card II (number 7 in Table III) in the Murray series, and it was .84 (3 1/2 sigmas) below the mean. Cards 20 and 16 (numbers 5 and 20 in Table III) were slightly more than a sigma below the mean level of response. As 16 is the blank card, and was seen twice by each subject, it is difficult to evaluate. It was shown as the last card for both sittings, and for Set A had a productivity ratio of 3.75 compared to a ratio of 3.60 for its use in Set B. As the standard deviation of the mean was .24 the two ratios are less than a sigma apart.

Card 7, however, has several characteristics described as poor by previous investigators. It is bizarre; has no human figures; it unfamiliar; and is too vague for at least children of the ages used in this study.

Predominant Emotional Tone

Table IV gives the total number of the various emotional responses made by each subject, divided into the emotional tone of the plot or main body of the story and that of the ending. Column U lists unhappy responses; column N, neutral responses; and column H, happy responses

TABLE IV
PREDOMINANT EMOTIONAL TONE FOR EACH SUBJECT

Subject	Plot			Ending		
	<u>U</u>	<u>N</u>	<u>H</u>	<u>U</u>	<u>N</u>	<u>H</u>
1	0	0	0	0	0	0
2	10	2	1	7		5
3	13		3	4	2	10
4	5	6	4	4	6	5
5	5	4	2	5	4	1
6	15	3		7	6	5
7	1			1		
8	6	4	2	6	4	2
9	10	1	4	9	1	5
10	4	5	2	4	4	3
11	3	3	1		1	6
12	8		1	3	2	4
13	11	2	1	9	1	4
14	14		4	3	1	14
15	12	4	3	11	4	4
16	5	1	4	3	1	6
17	6	4	2	3	1	7
18	0	0	0	0	0	0
19	16	3	1	1		19
20	7	3		2		8
21	6	2		1		4
22	10			1		9
23	17	2	1	2	4	14
24	13	1	2	3	4	9
25	11	2	7	6	1	13
26	6			3	1	1
27	13	1	2	6		10
28	11	2	1	1		11
29	14	3	2	1	2	16
30	12		2	4		7
31	11	4		4	1	10
32	9		3		3	8
33		7	1	3	1	4
34	3	4	7		4	9
35	10		2			9
36	8					7
37	12	4	2		2	14
38	15		1		5	11
39	9		1	1	2	7
40	4					
41	13		2	2		7
TOTAL	366	70	71	119	70	283

according to the criteria described earlier.

No attempt was made to correlate the variations in predominant emotional tone displayed by different individuals with any other information or data. This might offer possibilities for further investigation.

Table V, however, provides more useful immediate information. Here, we can see that certain pictures elicit a very high percent of unhappy responses, whereas others do not display such a tendency. Pictures 4 (18GF), 1 (6EM), 8 (3GF), and 18 (3EM) receive a high percent of unhappy responses; whereas pictures 19 (7GF), 12 (13G), 2 (8GF), and the blank card (10 and 20) do not. The latter also tend to have a higher percent of happy endings.

Changes in Emotional Tone

Table VI shows the changes in predominant emotional tone from plot to ending for stories that were classified as interpretive, i.e. "D" and "E" categories. A detailed individual analysis of these changes were not made, but it is worth noting that of 477 stories with a discernible ending, 41% had an unhappy plot that became a happy ending. Inasmuch as all the subjects were in an institution because of difficulties their parents had had including death and illness, this change in predominant emotional tone might not occur in stories from children gathered from other sources.

TABLE V
PREDOMINANT EMOTIONAL TONE FOR EACH PICTURE

Picture	Plot			Ending		
	<u>U</u>	<u>N</u>	<u>H</u>	<u>U</u>	<u>N</u>	<u>H</u>
1	30	4		15	5	10
2	13	5	6	4	5	12
3	17	4	3	4	6	12
4	31			16	5	8
5	14	3	1	3	3	10
6	16	5	4	5	6	12
7	4	1	1	1		5
8	29		2	8	4	17
9	14	7	5	5	5	13
10	15	4	6	4	1	20
11	21	6	4	4	6	18
12	13	4	7	4	4	15
13	17	7	2	4	3	18
14	18			10	1	7
15	22	4	1	6	4	16
16	18	9	2	6	2	20
17	18		2	4		17
18	28	1	2	10	3	18
19	19	5	12	3	5	26
20	10	2	9	4		17
	—	—	—	—	—	—
TOTAL	367	71	59	120	68	291

TABLE VI
CHANGES IN EMOTIONAL TONE
FROM PLOT TO ENDING

<u>Plot</u>	to	<u>Ending</u>	<u>Total</u>
Unhappy		Unhappy	103
Unhappy		Neutral	38
Unhappy		Happy	197
Neutral		Unhappy	7
Neutral		Neutral	29
Neutral		Happy	32
Happy		Unhappy	13
Happy		Neutral	1
Happy		Happy	57
Unhappy		None	25
Neutral		None	3
Happy		None	2
			<hr/>
			507

Frequency of Various Themas

Table VII offers a list of the various themas into which interpretive responses were classified. As has been pointed out above, the delineation of categories is not distinct and there is an insufficient variety of themas. Many stories were classified under family when several separate and distinct categories should have been made. The same criticism would apply for the thema categories of crime, death, and accident and illness as well as other.

This analysis, then, is offered as an initial attempt at determining themas, so that eventually clinicians will have normative data to select unusual responses from the more common or frequent ones given by individuals.

Reliability

To check the reliability of the ratings of level of response made by the investigator, the other examiner was asked to rate separately 100 stories using the same criterion. Using this same method Gerver¹² had obtained exact agreement for 97.8% of a 1,000 ratings and essential agreement for the remainder. In the present study, exact agreement was obtained for 94% of the stories rated by both raters, essential agreement for 5%, and disagreement on 1%. By essential agreement is meant a difference of one in the ratings, which were on a one to five scale for the level of response.

[illegible]

The investigator's original ratings were retained except in the one case of disagreement. In this particular case, the investigator agreed that the checker's rating was the better and it was changed accordingly. Despite this one case, a high degree of reliability was demonstrated for level of response ratings as made in this study.

SUMMARY AND CONCLUSIONS

Intended primarily as an attempt to investigate the effect of immediate experiences upon responses to the Thematic Apperception Test, this study has also attempted to explore additional problems. Subjects used were 41 children aged 8-1 to 15-3, living at the Methodist Childrens' Home.

1. To investigate the primary problem, twenty of the cards were divided into two sets, "A" and "B", by an experienced T.A.T. worker and the writer. Half of the children were shown set "A" before the motion picture and half saw Set "B" first. This was two days before the film was shown, and the other was given the day after the children saw the film. Only one story of the 370 obtained afterwards showed the influence of the movie, although all the stories were analyzed carefully. This would seem to indicate that movies of average dramatic intensity have very little effect on responses to the T.A.T.

2. A second problem investigated was the relationship of sex and I.Q. to the level of response or productivity. No sex differences were found, and the data were inadequate to show any definite relationship to I.Q.'s.

3. The third problem studied was the effect of age upon the average level of response. The 41 subjects were

divided into two groups according to age, and then the mean level of response for each group was computed. The difference was highly significant.

4. Any questions as to the value of the T.A.T., at least in terms of productivity, can be answered affirmatively for children between the ages of 8 and 15. Only 6 of the 41 subjects failed to have 50% interpretive responses. In many instances, psychological "blocking" seemed more likely to have been the cause than immaturity or lack of ability.

5. An analysis was made of the most productive and the least productive pictures, and certain common characteristics were found within each group. These characteristics agreed in general with the findings of previous investigators.

6. Interpretive responses (categories D and E) were also classified as to predominant emotional tone, both in the plot and ending. Certain cards were found to elicit a greater preponderance of unhappy or sad responses than the rest. Although there were individual difference in per cent of unhappy responses among the subjects, no attempt was made to find correlated factors or to determine the cause of these differences.

7. A study was made of the changes in predominant emotional tone from plot to ending, and it was found that of 477 stories with a discernible ending, 41% changed from an

unhappy plot to a happy ending. Less than 3% turned a happy plot into an unhappy ending.

8. An intra-scorer reliability check of the level of response ratings was made with two raters, using 100 of the stories. Exact agreement was obtained in 94 stories and essential agreement in five more. It was concluded that the method of rating used was highly reliable.

9. A final analysis made of the stories obtained in this investigation was an attempt to classify them according to thema, i.e. plot, motif, or principal dramatic feature of the story. This was introduced as a tentative beginning in the gathering of normative data on the frequency of various themas, to aid in evaluating the significance of responses obtained in individual T.A.T. records.

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APPENDIX I
PROCEDURE
IN
ADMINISTERING T.A.T.

- I. Physical Situation - Subject sitting more diagonally then with his back directly turned to the clinician.
 - A. Let subject see only one card at a time and wait until he hands you the card indicating he is finished or says he is finished. Make no move before then.
- II. After introductions are made by housemother, ask child to be seated, and then give him the following instructions:

"This is a story telling contest. I am going to show you a picture and I want you to make up a story about the picture, the best one you can, by telling me what the people in the picture are doing, what they have done, and what may happen to them. Since this is a story telling contest, you may make the stories as long as you wish or as short as you wish, as long as you tell a story."

 - A. In answer to questions about the contest you may say:
 1. Many children are involved.
 2. You don't know about prizes.
 3. Be non-committal and do not emphasize this as a contest.
 - B. Do not make any suggestions about type of story wanted. (We expect to get some that will seem to have no self-identification.)
 - C. You May repeat the instructions at any time.
- III. Recording
 - A. Record every word. It is permissible to slow down subject to get every word. Record your own questions.

- B. Time is taken for total time on each picture, and also initial time. This is period from which subject starts to look at card until he starts story.
 - C. If stories are too long (over 8 minutes) you can ask them not to make them so long (elaborate).
- IV. Degree of Involvement - To help determine this, note along margin the following symbols to indicate behavior described.
- A. (Sp) Subject speeds up and speaks hurriedly; you can catch this when you've determined his normal rate of delivery in the situation.
 - B. (Sm) Smoothness of story or ease with which it seems to come out.
 - C. (In) Intensity, indicated by way he grips cards and loses himself.
 - D. (Em) Emotional involvement. This may be shown by excitement, anger, sadness, etc., as he tells the story.
- V. Questioning - This is done only if you can't get a story from the subject. Some children will only describe the picture.
- A. Do not use any leading questions, i.e. questions which are suggestive and offer definite cues.
 - B. The following are examples of permissible questions:
 - "What led up to it?"
 - "How does it end?"
 - "What happens then?"
 - "Tell me more about what he is?"
 - "Is there anything unusual about the man in the picture?"
 - "What is the relationship between the people in the picture?"
 - "What has happened here?"
 - "What is happening here?"
 - "What may happen here?"

- C. If you can not get a story, even with these questions, quit and go on to the next picture.
- D. If the subject wants to tell more than one story or ending for each picture, ask him to select one and tell that.

VI. Inquiry

- A. This is done after the subject has seen all the pictures for the session.
- B. Main object of inquiry is to find source of the story.
 - "What made you think of this story?"
 - "Have you read anything like this?"
 - "Do these people resemble (look like) someone you know in real life?"
- C. If possible, also find out when they were in contact with the material.
 - "How long ago did you read that story?"
(If they've told you that they read it someplace).
 - "When did you know these people?"

VII. Stimulation and/or Encouragement

- A. It is permissible to praise the child for his stories, and this should be done for the first two or three.
 - "That was a nice story."
 - "That was a fine story, but how did it end?"
- B. When you're finished, praise him for his stories and say "goodbye" without giving him any hint that you'll be back again to see him.

VIII. Instructions for Blank Card

- A. Hand subject blank card without saying anything at first.

- B. If he hesitates and looks puzzled, encourage him by telling him to pretend there is a picture on it and make up a story as he did for the other cards.
- C. Otherwise, procedure is the same as for the other cards.

APPENDIX II

"The Greener Hills" is the story of an optimist who is continually looking for greener hills, and dragging his wife and two children around with him.

The picture opens with the mother answering the phone, and then the father comes home and with great enthusiasm tells the family that he has bought a peanut farm and that they will be very rich some day selling "Golden Goobers."

They take a taxi to their new home with a cynical driver who tells them that the last owner was happy to sell and get far away. He leaves them with the remark to the father, "Hope you have an extra shirt." Instructed by their father to look under the leaves for the peanuts, the children go off into the field to look for some. They return shortly without any, and the father goes to look but also can not find any. The movie next shows a newspaper with a story that the farm had been sold, since it was good only for raising corn, potatoes, and beans.

The wife insists that it would be smart to stay there and raise corn, potatoes, and beans, and tells the husband to go into town and use the rest of their money to pay on the farm. As he goes along in the taxi, the husband sees a man being chased by bees, and he asks the taxi driver to stop. Getting out, he takes an old broom and sets it on fire to get it smokey. Then, taking a headnet, he goes after the bees with the broom and succeeds in getting them back in their hives. The owner of the bee farm then starts to sell him the bee farm, and he returns to his family with a moving van. However, his wife refuses to move, and so he goes on alone.

He makes a failure of the bee farm, and becoming lonely, he decides to return to his family for a surprise visit. The children are having a party, and as he looks in the window the mother gives the girl a piano and the boy a bicycle. The boy sees his father peeking in the window, and they all run out to him. The mother explains that they'd found out that peanuts grow underground, and they'd had a bumper crop. She pleads with him to stay and help sell the crop with all his clever promotional ideas. He submits and agrees to reform and stick this enterprise instead of seeking greener hills elsewhere.

APPENDIX III

DESCRIPTION OF PICTURES USED

Set A

1. (6BM) A Short elderly woman stands with her back turned to a tall young man. The latter is looking downward with a perplexed expression.
2. (8GF) A young woman sits with her chin in her hand looking off into space.
3. (13B) A little boy is sitting on the doorstep of a log cabin.
4. (18GF) A woman has her hands squeezed around the throat of another woman whom she appears to be pushing backwards across the banister of a stairway.
5. (20) The dimly illumined figure of a man (or woman) in the dead of night leaning against a lamp post.
6. (4) A woman is clutching the shoulders of a man whose face and body are averted as if he were trying to pull away from her.
7. (11) A road skirting a deep chasm between high cliffs. On the road in the distance are obscure figures. Protruding from the rocky wall on one side is the long head and neck of a dragon.
8. (3GF) A young woman is standing with downcast head, her face covered with her right hand. Her left arm is stretched forward against a wooden door.
9. (2) Country scene: In the foreground is a young woman with books in her hand; in the background a man is working in the fields and an older woman is looking on.
10. (16) Blank card.

Set B

11. (7BM) A gray haired man is looking at a younger man who is sullenly staring into space.
12. (13G) A little girl is climbing a winding flight of stairs.

13. (1) A young boy is contemplating a violin which rests on a table in front of him. .
14. (18BM) A man is clutched from behind by three hands. The figures of his antagonists are invisible.
15. (14) The silhouette of a man (or woman) against a bright window. The rest of the picture is totally black.
16. (6GF) A young woman sitting on the edge of a sofa looks back over her shoulder at an older man with a pipe in his mouth who seems to be addressing her.
17. (19) A weird picture of cloud formations overhanging a snow-covered cabin in the country.
18. (3BM) On the floor against a couch is a huddled form of a boy with his head bowed on his right arm. Beside him on the floor is a revolver.
19. (7GF) An older woman is sitting on a sofa close beside a girl, speaking or reading to her. The girl, who holds a doll in her lap, is looking away.
20. (16) Blank card.